Integrated planning for ecological urban regeneration

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Considering that the vast majority of housing stock existing in 2011 will be used to satisfy residential needs in the year 2020 and beyond, ecological urban regeneration appears clearly as the key issue in relation to global urban sustainability for the most part of this century. Thus, if the 1992 Rio Summit identified the urban environment as the main arena where the global environmental crisis should be fought, 20 years later we must emphasize that it is mainly to the real cities and territories around us now where we should address our attention.

On the other hand, the actual crisis of representative democracy, as well as the growing awareness attained during the last decades about the real complexity involved in the process of decision-making in general and especially in relation with the construction of the city, brings forward the idea of governance as another relevant issue to consider unavoidably when we consider the future of urban planning.

Both issues are somewhat present now in almost every reflection or proposal on progress about urban sustainability, but the debate remains open on both fronts: the usefulness of model ecological cities or eco-cities conceived ex novo, as opposed to ad hoc regeneration strategies on one hand, and the superior efficiency of a top-down approach led by experts in ecological planning, as opposed to a complex bottom-up approach driven by communities on the other. Naturally, everyday practice shows that there is not really such a clear opposition or gap between the extremes considered for the two issues, but it is important to set practical and theoretical priorities clearly, especially in a moment such as now, of scarcity of financial resources.

It might be useful to use this conceptual framework to analyze the projects of ecological urban planning presented in the four articles published in this issue, as it permits us to set a sort of hierarchy or ranking among them according to their relation to the two relevant issues considered. Naturally, this simple exercise is not intended as a statement about the intrinsic quality of the projects themselves, neither about the coherence between their aims and their results in terms of energy efficiency and low carbon emissions, but rather about their relevance and potential of replicability in global terms.

The proposed ranking would go as follows.

In first position, we would place one of the two low carbon neighbourhoods, Vauban, in Freiburg, Germany, reviewed by Jo Williams in her article, as it reunites several features of significance in global terms: it is developed on a brownfield site by a dense middle-sized city, it combines rehabilitation and change of use of existing buildings with construction of new ones on recycled public land, and it has been developed with a heavy involvement of the

community and a decided bottom-up approach with innovative management and financial procedures. In fact, the case of Vauban is considered generally an unavoidable reference for eco-urbanism in the European context, and several other projects on similar grounds have been developed there rather successfully, for instance the French Quarter and the Loretto area in Tübingen, Germany, or the eco-neighbourhood Trinitat Nova in Barcelona, Spain.

The case study of Brogarden in Alingsa˚s, Sweden, as analyzed by Carly Friesen with Björn Malbert and Heinrik Nolmark, would share first position or a close second position in this informal ranking. Its main interest lies in dealing with the renovation of an existing development of social housing built within an intensive program of construction known as the Million Programme in the period 1960–1975. Considering that the bulk of existing social housing stock in the European urban peripheries belongs to this period, any experiment addressing energy saving through renovation to passive standards of this type of urban pattern is of crucial importance, furthermore, when it deals synergistically and with a community-driven approach, with a variety of problems, especially the upgrading of the usually shapeless open space between blocks. In contrast with Vauban, in this Swedish operation the residents were not involved from the beginning, although their participation was then fully incorporated. In this instance, we can also find other regeneration projects of similar approach and scale, among them the successful regeneration of La Mina neighbourhood in Barcelona, but none of them so ambitious in terms of energy savings.

The third and fourth positions of this ranking would be occupied respectively by another Swedish case, the low carbon development of Hammarby Sjo¨stad in Stockholm, also presented by Jo Williams, and West Village, in Davis, California, USA, analysed by Stephen M. Wheeler and Robert B. Segar. The first of these two cases is unquestionably relevant for its large scale (20,000 residents in 9,000 units) and its commitment to energy saving, as well as for the high quality of urban space attained, but the fact of being mainly a new building development on municipality owned greenfields and its rather top-down approach reduces its potential for replicability and exemplarity in relation to the two issues considered.

With respect to the California project, it is a highly interesting experiment in net zero building with a deliberately synergic approach and a wide scope, including crucial aspects such as sustainable mobility and mix of uses, but its relatively small scale and its specific character as a university neighbourhood debilitate its potential for replicability. In addition, the polemical occupation of prime agricultural land for the project, although interestingly off-set through the creation of an agricultural buffer nearby, is somewhat risky as a planning tool when considered from a general point of view.

The remaining project, and the last one in our ranking, is the Aldo Leopold Legacy Center, in Wisconsin, USA, presented in this issue by Michael Utzinger. Consisting of a very rigorous and coherent exercise in energy-saving and bioclimatic design, it is especially interesting for its attention to the life cycle and energy content of materials, components, and processes beyond the usual net-zero building concept, but its unique character and small scale place it off the general framework of comparison set here.

Apart from the ranking here presented in relation to urban regeneration and citizen participation, each one of the projects analyzed has specific aspects of relevance in the face of

global urban sustainability, but maybe the most important conclusion is that, within this heterogeneity and diversity, many common features emerge from the whole in a converging vision: the need of an integrated and dynamic approach to urban planning based on the partnership between all the stakeholders involved; the necessity of widening the scope of the energy-saving solutions in order to identify synergies in other spheres beyond the technical one; and the importance of increasing the environmental awareness of the population, experts and decision-makers included, to facilitate and expand the potential of an urban planning that can be truly eco-logical.